

## Patent Abstracts of Japan

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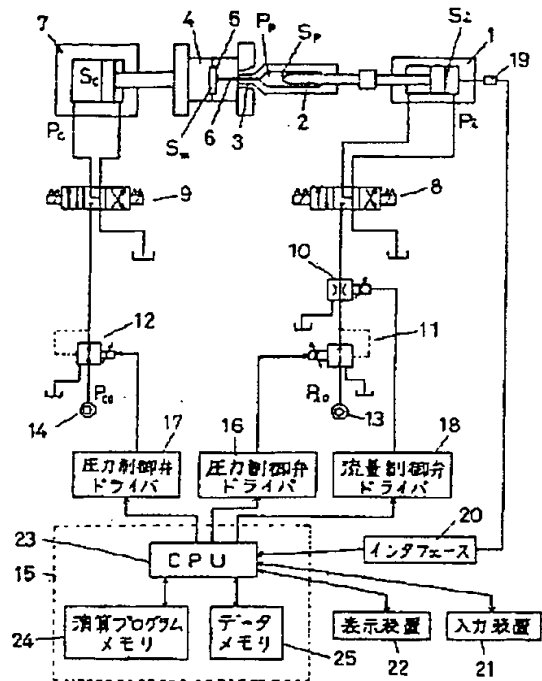
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APPLICANT : SODICK CO LTD;

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TITLE : CLAMPING FORCE CONTROLLER FOR INJECTION MOLDING MACHINE



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ABSTRACT : PURPOSE: To prevent the damage and over-packing of a mold by clamping the mold by the optimum force in proportion to the size of the cavity of the mold or the change of injection pressure by controlling the clamping force of a clamping apparatus corresponding to the resin pressure during the advance of an injection plunger and the resin pressure after filling.

CONSTITUTION: A control apparatus 15 is equipped with a CPU 23, an operation program memory 24 storing an operation program calculating the oil pressure applied to a clamping cylinder 7 and a data memory 25. The inherent value of an apparatus such as the area  $S_i$  of an injection cylinder 1 is preset to the data memory 25. The projection area  $S_m$  of the cavity 5 of the mold mounted on a clamping apparatus, the tolerable upper limit values of filling speed and filling pressure given as the functions of the position of an injection plunger at the time of filling, the dwelling force at a dwelling time and a correction factor are inputted from an input apparatus 21 to be stored. The CPU 23 sends a control signal to a flow rate control valve driver 18 and a pressure control valve driver 16 on the basis of the molding condition stored in the data memory 25 to control the injection speed and injection pressure at the time of molding.

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